

**REMARKS**

Claims 1-18 are pending in this application. No claims are amended or canceled by this amendment.

Applicant notes with appreciation the Examiner's acknowledgement that certified copies of all priority documents have been received by the U.S.P.T.O.

Applicant also respectfully notes the present action indicates that the drawings have been accepted by the Examiner.

**Claim Rejections- 35 U.S.C. § 101**

Claims 1-18 stand rejected under 35 U.S.C. § 101 because the Examiner asserts the claimed invention is directed to non-statutory subject matter. Applicant respectfully traverses the rejection for the reasons detailed below.

The revised examination guidelines set forth in MPEP 2106, IV., C., 2. (page 2100-11) indicate that a claimed invention is statutory when it "produces a useful, concrete and tangible result." The Federal Circuit has provided clear guidance on the meaning of a final result (achieved by the claimed process) that is useful, concrete and tangible.<sup>1</sup>

The broadest claim at issue in Arrhythmia was directed to a process that involved "converting" a series of signals, "applying" a portion of time segments in reverse time order, "determining" an arithmetic value of the amplitude of an output signal, and "comparing" the value with a predetermined level.<sup>2</sup> The claim did not, however, recite outputting, displaying, or storing the determined number. The Federal Circuit acknowledged that an algorithm is included in the subject matter of the process claim.<sup>3</sup> But nevertheless held the claimed process statutory

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<sup>1</sup> See *Arrhythmia Research Technology, Inc. v. Corazonix Corporation*, 958 F.2d 1053 (Fed. Cir. 1992).

<sup>2</sup> *Id.* at 1055.

<sup>3</sup> *Id.* at 1059.

because the result of the process “is not an abstract number, but is a signal related to the patient’s heart activity” (emphasis added).<sup>4</sup>

Claim 1 is factually similar to the claim at issue in *Arrhythmia*. Namely, the result of the process is a “spatial atomic number distribution” that relates to the distribution of the administered contrast agent in the examination object. The result is therefore “tangible,” and not an abstract number. Furthermore, Applicant respectfully submits the spatial atomic number distribution is further disclosed in a practical application, to represent the contract agent by imaging, and therefore its usefulness in a disclosed practical application can further be realized.

Applicant notes that revised MPEP guidelines follow (but do not depart from) the holding in *Arrhythmia*. Indeed, the revised MPEP guidelines cite the *Arrhythmia* case as an example of a claimed process that constitutes a practical application of an abstract idea, because it corresponds to a useful, concrete and tangible thing – the condition of patient’s heart.<sup>5</sup>

In view of the above, Applicant respectfully requests the rejections under 35 U.S.C. § 101 be withdrawn.

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<sup>4</sup> *Id.*

**CONCLUSION**

In view of the above remarks and amendments, the Applicants respectfully submit that each of the pending objections and rejections has been addressed and overcome, placing the present application in condition for allowance. A notice to that effect is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to contact the undersigned.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Donald J. Daley, Reg. No. 34,313, at the telephone number of the undersigned below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

HARNESS, DICKEY, & PIERCE, P.L.C.

By

  
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Donald J. Daley, Reg. No. 34,313  
P.O. Box 8910  
Reston, Virginia 20195  
(703) 668-8000

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<sup>5</sup> November 2005 O.G. Notice, Annex II, page 18.